

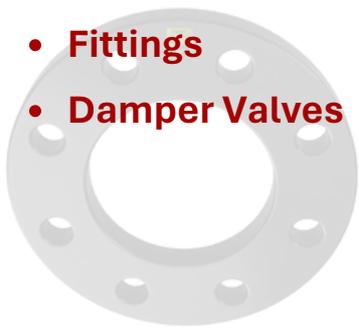
stärke™



PPs Ventilation Piping System

for Exhaust and Fume Extraction Systems

- Pipes
- Fittings
- Damper Valves



KEY SAFETY ENHANCEMENTS

- ✓ **Reduced Spread of Fire:**
Flame retardant additives disrupt combustion and shield the material, ensuring pipes do not support sustained burning and flames cannot travel through ductwork.
- ✓ **Self-Extinguishing**
These materials typically stop burning when the ignition source is removed, helping to prevent escalation of fire incidents within ventilation systems.
- ✓ **Minimal Smoke Generation:**
In the event of fire, such pipes produce less smoke and lower toxicity, which improves visibility and reduces health hazards, aiding safer building evacuation.
- ✓ **High Ignition Temperature:**
More resistance to heat and ignition sources protects the ventilation system itself from acting as a fire conduit.
- ✓ **Regulatory Compliance:**
Flame retardant pipes meet stringent fire safety standards for construction, building codes, and industrial applications.

FEATURES AND BENEFITS

- ✓ **Flame Retardancy:**
Classified as Building Material as self-extinguishing and reduced flammability for enhanced fire safety.
- ✓ **High Chemical Resistance:**
Can withstand continuous operating temperatures up to 100°C (212°F), with performance often superior to PVC alternatives.
- ✓ **Mechanical Durability:**
High impact resistance and rigidity support reliable, long-term operation even in demanding industrial settings.
Hard surface and low moisture absorbency for reliable performance.
- ✓ **Lightweight Construction:**
Much lighter than metals, which reduces installation time and labor requirements while facilitating handling and transportation.
- ✓ **Regulatory Compliance:**
Flame retardant pipes meet stringent fire safety standards for construction, building codes, and industrial applications.
- ✓ **Excellent Processability**
Pipes and fittings can be easily welded using hot-air or extrusion welding methods, supporting quick and efficient installation.
Available in a wide range of sizes and configurations suitable for varied applications.
- ✓ **Long Service Life & Sustainability**
Designed for decades of reliable function with minimal maintenance. 100% recyclable and free from toxic additives, chlorides, or heavy metals.

APPLICATIONS BENEFITS

- ✓ Enhanced Fire Safety:**
 Essential in areas with ignition sources (hot surfaces, sparks, electrical faults), such as laboratories, chemical processing, or industrial plants.
 Reduces the risk of fire spreading through ventilation ducts, meeting stringent regulatory requirements in modern buildings.
- ✓ Corrosion and Chemical Fume Handling:**
 Ideal for applications where air and gases may carry corrosive or aggressive substances (e.g., laboratories, chemical production, water treatment plants, plating and etching facilities).
- ✓ Cost-Efficiency:**
 Lower total installation and maintenance costs compared to metal duct systems because of lighter weight and ease of fabrication.
 Does not require costly coatings or linings for corrosion protection, unlike metals.
- ✓ Broad Compatibility:**
 Suitable for fume cupboards, degassing pipes, exhaust and intake ventilation, surface treatment operations, and areas requiring high safety standards.
 Frequently used in hospitals, universities, pharmaceutical and bio-industry environments.

PROPERTIES: PPS VS. OTHER DUCT MATERIALS

Properties	PPs	PVC	Metal Ducts
Flame Retardancy	High	Moderate (varies)	Low (unless coated)
Chemical Resistance	Excellent	Good	Poor to Fair
Temperature Resistance	Up to 100°C	Lower	High
Weight	Lightweight	Lightweight	Heavy
Corrosion Resistance	Excellent	Good	Poor
Installation Complexity	Easy (welding)	Easy	Difficult
Maintenance	Low	Moderate	High

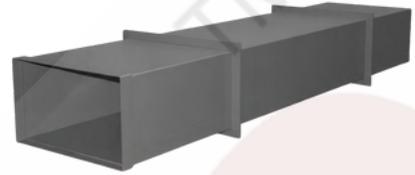
PPS VENTILATION SERIES



PPs Pipe



PPs Fabricated Pipe



PPs Rectangular Pipe



PPs 45° Elbow



PPs 90° Elbow



PPs Fabricated Bend



PPs Tee



PPs Reducer Tee



PPs Reducers



PPs Socket



PPs Dampers



PPs Electric Dampers



PPs Fabricated Dampers

*Images are illustrative and may not represent actual design

PPS PIPES AND MOULDED FITTINGS

Pipe OD (mm)	Pipe Thickness (mm)	Elbow 90	Elbow 45	Tee	Socket	Flanges	Dampers	Reducers*
20	2.8			✓	✓	✓		25 x 20
25	2.8			✓	✓	✓		32 x 25
32	3.5			✓	✓	✓		40 x 32
40	4			✓	✓	✓		50 x 40
50	4	✓	✓	✓	✓	✓	✓	63 x 50
63	4.5	✓	✓	✓	✓	✓	✓	75 x 63
75	5	✓	✓	✓	✓	✓	✓	90 x 75
90	5	✓	✓	✓	✓	✓	✓	110 x 90
110	3.8	✓	✓	✓	✓	✓	✓	160 x 90
110	3	✓	✓	✓	✓	✓	✓	160 x 110
160	3	✓	✓	✓	✓	✓	✓	200 x 110
200	3.3	✓	✓	✓	✓	✓	✓	200 x 160
250	4	✓	✓	✓	✓	✓	✓	250 x 160
315	4.2	✓	✓	✓	✓	✓	✓	250 x 200
355	4.2	✓	✓	✓	✓	✓	✓(F)	315 x 200
400	4.5	✓	✓	✓	✓	✓	✓(F)	315 x 250
450	4.8	✓	✓	✓	✓	✓	✓(F)	400 x 200
500	5.5	✓	✓	✓	✓	✓	✓(F)	400 x 250
550	5.8	✓	✓	✓	✓	✓	✓(F)	400 x 315
600	6	✓	✓	✓	✓	✓	✓(F)	400 x 355
630	6.0 (F)	✓	✓	✓	✓(F)	✓(F)	✓(F)	500 x 315
700	6.0 (F)	✓	✓	✓(F)	✓(F)	✓(F)	✓(F)	500 x 355
800	8.0 (F)	✓	✓	✓(F)	✓(F)	✓(F)	✓(F)	600 x 400
900	8.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	800 x 500
1000	8.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	1000 x 600
1120	8.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	
1200	12.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	
1400	12.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	
1500	12.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	
2000	15.0 (F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	✓(F)	

(F) – Fabricated ✓ – In our Product Range * – Moulded reducers, Other sizes available with fabrication

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